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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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*Ex parte* SHLOMO SHKOLNIK

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Appeal 2009-005409
Application 09/914,487
Technology Center 2100

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Decided: January 13, 2010

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*Before* JOSEPH L. DIXON, HOWARD B. BLANKENSHIP, and THU A. DANG, *Administrative Patent Judges*.

DANG, *Administrative Patent Judge*.

DECISION ON APPEAL

## I. STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134 (2002) from a final rejection of claims 23-26, 30, 31, 41, 42, 51, 72-76, and 80-92. Claims 1-22, 27-29, 32-40, 43-50, 52-71, and 77-79 have been canceled. An Oral Hearing regarding this appeal was conducted on December 9, 2009. We have jurisdiction under 35 U.S.C. § 6(b) (2008).

We affirm.

### A. INVENTION

According to Appellant, the invention relates to the design of aircrafts and particularly to methods for fast information flow in large design staffs (Spec. 1, ll. 7-8).

### B. ILLUSTRATIVE CLAIM

Claim 23 is exemplary and is reproduced below:

23. A method of forming a vehicle design index, comprising:

providing a plurality of computerized design tools, said tools being adapted for carrying out a design task of a particular system of a vehicle, at least some of which tools store information restricted to viewing by a respective limited group of workers, which workers are assigned to a particular system or systems of the vehicle;

gathering, by a computer, from the plurality of computerized design tools, information on elements of different systems of the vehicle, wherein the gathering includes retrieving from at least one of the computerized tools information on fewer than all the elements of the vehicle required for design of the system described by the tool;

storing the gathered information in the index; and

opening the index for viewing by workers at least some of which are assigned to a different systems of the vehicle from each other,

wherein storing the information in the index comprises storing only information which is authorized for viewing by workers assigned to any of the plurality of systems.

## C. REJECTIONS

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

| | | |
|---|---|---|
| Carver | US 4,937,768 | Jun. 26, 1990 |
| Thackston | US 6,295,513 B1 | Sep. 25, 2001 (filed Oct. 01, 1999) |

Claims 23-26, 30, 31, 41, 42, 51, 72-76, and 80-92 stand rejected under 35 U.S.C. § 103(a) over the teachings of Thackston in view of Carver.

## II. ISSUES

Has Appellant shown that the Examiner erred in finding that the combination of Thackston and Carver teaches or would have suggested "gathering" that "includes retrieving from at least one of the computerized tools information on fewer than all the elements of the vehicle required for design of the system described by the tool" and "storing the gathered information in the index . . . wherein storing the information in the index comprises storing only information which is authorized for viewing by workers assigned to any of the plurality of systems" (claim 23). In

particular, the issue turns on whether Thackston's database gathers information "on fewer than all the elements," and whether Thackston's storing of information for limited access comprises storing of information in an "index" wherein the storing is "of only information which is authorized for viewing," as required by claim 23.

## III. FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

*Thackston*

1. Thackston discloses engineering analysis and simulation processing, wherein series of teams are assembled to evaluate the design according to their engineering specialties, including mechanical engineers, electrical engineers, RF engineers, acoustic specialist, reliability engineers, safety engineers, signal processing specialists, production engineers, and so on (col. 1, l. 65 to col. 2, l. 13; Fig. 1).
2. Stored design and analysis access permission data module 860 comprises data assigned by the prime contractor determining which teams/team members may access the part design model, documents and processing modules (col. 15, ll. 7-11; Fig. 8).
3. Module 860 allows an approval authority to assign access permissions to limit access to those portions of the part design module, those specifications or portions thereof, and those processing modules as appropriate (*id.* at ll. 21-27).

4. Teams, such as engineering analysis and simulation (EAS) teams, may need access to all or part of a part design model in order to carry out the analysis for their specific discipline (*id.* at ll. 15-21).
5. Stored baseline part design model data module 865 contains part design models for the projects, or the entire history of baseline designs including the current baseline design (*id.* at ll. 37-44).
6. Stored working copy part design model data module 892 may be used by designers and analysis for storing part design models, wherein an EAS team member who checks out the current baseline part design model from module 865 may not be permitted to "check in" that part design model because only the prime contractor can authorize writing a baseline part design model to module 865 (*id.* at ll. 46-55).

## IV. PRINCIPLES OF LAW

"[T]he PTO gives claims their 'broadest reasonable interpretation.'" *In re Bigio*, 381 F.3d 1320, 1324 (Fed. Cir. 2004) (quoting *In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000)). "Moreover, limitations are not to be read into the claims from the specification." *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993) (citing *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989)). Our reviewing court has repeatedly warned against confining the claims to specific embodiments described in the specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (en banc).

> Section 103 forbids issuance of a patent when "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at

> the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains."

*KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007).

The Federal Circuit recently recognized that "[a]n obviousness determination is not the result of a rigid formula disassociated from the consideration of the facts of a case. Indeed, the common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not." *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (citing *KSR*, 550 U.S. at 416).

## V. ANALYSIS

Appellant contends that, in the teachings of Thackson, "the NICECAD system maintains information on all the elements of the design[sic] by the group plus other information about other elements in the system required for integration of the design changes into the overall system" (App. Br. 12). Thus, according Appellant, "[t]here does not appear to be any database which stores less than the complete baseline data for a particular design group nor any database that stores baseline information for more than one design group" (*id.* at 13).

However, the Examiner finds that "Appellants'[sic] seek a patent based on the concept of the claimed 'design index' which stores some, but not all, of the available relevant information . . . this is similar in concept to a traditional telephone book, which is an index of telephone numbers" (Ans. 23). The Examiner explains that "[t]he complete set of relevant information

comprises all telephone numbers" whereas "[t]he telephone book, or index, includes only the telephone numbers which are authorized for viewing by the public, and therefore does not include the 'unlisted' telephone numbers" (*id.*). The Examiner further finds that "Thackston further teaches that the publicly accessible design index does not include all of the information from some of the design tools because that information is not authorized" wherein an "EAS team member may retrieve ('check out') a part model from the index, modify it by working with a stored local copy (in a 'virtual scratch pad'), and that the modified stored local copy is not authorized for re-inclusion in the index" (*id.* at 25).

Thus, the issue we address on appeal is whether the combination of Thackston and Carver teaches or would have suggested "gathering" that "includes retrieving from at least one of the computerized tools information on fewer than all the elements of the vehicle required for design of the system described by the tool" and "storing the gathered information in the index," wherein "storing the information in the index comprises storing only information which is authorized for viewing by workers assigned to any of the plurality of systems" (claim 23). In particular, we address whether Thackston's database gathers information "on fewer than all the elements," and whether Thackston's storing of information comprises storing of information in an "index" wherein the storing is of "only information which is authorized for viewing," as required by claim 23.

We give the claims their broadest reasonable interpretation. *See In re Bigio*, 381 F.3d at 1324. Furthermore, our analysis will not read limitations

into the claims from the specification. *See In re Van Geuns*, 988 F.2d at 1184.

Appellant's claims simply do not place any limitation on what the term "gathering" is to be, is to represent, or is to mean, other than that the gathering step "*includes* retrieving … information on fewer than all the elements" (claim 23, emphasis added). Thus, the gathering step cannot be confined to a specific embodiment when the claims do not recite a specific embodiment. Instead, we interpret the gathering of information as retrieving *a plurality* of information which "*includes*" retrieving information on fewer than all the elements.

Similarly, there is no limitation on what the term "storing the information" is to be, is to represent, or is to mean, other than that the information is stored in an "index" and the storing of information in the index "*comprises* storing only information which is authorized for viewing" (claim 23, emphasis added). Thus, the storing step cannot be confined to a specific embodiment as Appellant argues, and we instead interpret storing of information as storing of *a plurality* of information which "*comprises*" information authorized for viewing, in an index.

In fact, claim 23 does not even have any limitation on what "index" is to be, represent or mean other than that the information is stored in an index, and that the index is opened "for viewing by workers." We interpret index to be any element for storing the information that is able to be opened for viewing.

Because Appellant admits that Thackston discloses maintaining information "on all the elements of the design [sic] by the group plus other information about other elements in the system required for integration of the design changes into the overall system" (App. Br. 12), Appellant appears to be arguing that maintaining information on all elements does not "*include*" retrieving information on fewer than all elements. That is, Appellant appears to be arguing that maintaining information on all elements does not include maintaining *only* information on fewer than all elements *at all times* because it may include retrieving information on additional elements some of the times.

However, such apparent argument is not commensurate in scope with the language of claim 23 since claim 23 does not recite any such "only" and "at all times" limitations and does not preclude any such inclusion of retrieving of other information at some of the times. Rather, claim 23 merely requires that the retrieving of information includes retrieving *at least* information on fewer than all elements whether at some or all of the times. In fact, the language of claim 23 does not preclude the retrieving of information on fewer than all elements at a time when only fewer than all of the elements are available, i.e., when the gathering of information is still in progress and the gathering is not complete.

Appellant appears to similarly be arguing that storing all information in the index does not "*comprise*" storing only information which is authorized for viewing. Again, such apparent argument is not commensurate in scope with the language of claim 23 since claim 23 does

not preclude storing of information not authorized for viewing at some of the times while storing only information that is authorized for viewing some other times. In fact, the language of claim 23 does not preclude the storing of only information that is authorized for viewing when only information that is authorized for viewing is available, i.e., when the other information is not yet available to be stored.

Thackston discloses assembling various teams to evaluate the design according to their engineering specialties (FF 1), wherein the teams and team members have limited access to the part design model, documents and processing modules (FF 2-4). The skilled artisan would have understood Thackston to disclose providing a plurality of computerized design tools adapted for carrying out a design task, wherein at least some of which tools store information restricted to viewing by a respective limited group of workers, a required by claim 23.

Furthermore, Thackston discloses storing part design models for the projects or the entire history of baseline designs (FF 5). We find that claim 23's database that gathers information "on fewer than all the elements" reads on Thackston's database that retrieves at least particular part design models or the particular history of baseline designs. In fact, Thackston's database retrieves information on fewer than all elements, i.e, only a particular part design model or a particular history, when the gathering of information is still in progress and the gathering is not complete.

Thackston also discloses that particular team members have limited access to a particular stored part design model (FF 6). A skilled artisan

would have would have found it obvious that a publicly accessible design index is provided to the team member in Thackston to open and access the stored part design model. Furthermore, the artisan would have understood that a particular part design model that is authorized for access a particular team member does not include all of the information but rather only information authorized for viewing by the team member. Thus, we agree with the Examiner's finding that "Thackston further teaches that the publicly accessible design index does not include all of the information from some of the design tools because that information is not authorized" (Ans. 25).

Accordingly, we agree with the Examiner that the combination of Thackston and Carver teaches or would have suggested "gathering" which "includes retrieving from at least one of the computerized tools information on fewer than all the elements of the vehicle required for design of the system described by the tool" and "storing the gathered information in the index," wherein "storing the information in the index comprises storing only information which is authorized for viewing by workers assigned to any of the plurality of systems," as required by claim 23.

*Independent Claim 23*

As to claim 23, Appellant further adds that "there is no teaching in Thackston of any index," and repeats the contention that "there is no teaching or rational for this index being incomplete" because Thackston's database includes "complete information on entire design of all the elements" (App. Br. 14). However, Thackston discloses that particular team

members have limited access to a particular stored part design model (FF 6). As discussed above, we find that a skilled artisan would have found it obvious that a publicly accessible design index is provided to the team member in Thackston to open and access the stored part design model. Thus, we find that the artisan would have understood that a particular part design model that is authorized for access a particular team member, i.e., the indexed model, does not include all of the information but rather only information authorized for viewing by the team member.

*Independent Claim 72*

As to claim 72, Appellant repeats the contention that "the entire concept of Thackston is that information on all parts should be stored" (App. Br. 16). However, Appellant is repeating a contention that is not commensurate in scope with the claimed invention because claim 72 does not preclude storing of all elements but rather merely requires that fewer than 10% is selected.

The Examiner finds that the "10%" limitation "is merely a question of relative proportions which, in the context of the field of invention, do not define a novel or non-obvious invention" (Ans. 31). Appellant provides no argument to address why the "10%" limitation is not a question "of relative proportions" as set forth in the Examiner's findings.

Thackston discloses that particular team members select only a particular stored part design model for viewing (FF 6). One of ordinary skill

in the art would have found it obvious that a particular stored part design model may comprise less than 10% of all elements.

*Independent Claims 82, 86, and 87*

Appellant do not provide separate arguments for patentability for claims 82, 86, and 87 from those of claims 23 and 72. Accordingly, claims 82, 86, and 87 fall with claims 23 and 72.

*Independent Claim 92*

As for claim 92, Appellant contends that

> the claims further requires that the system includes a second database that associates each of the worker codes with one or more workers responsible for design, such that changing worker assignments does not require changes in the part numbers.

(App. Br. 19), and contends that "[n]o such second database is taught or suggested by Thackston" (*id.*).

However, the Examiner finds that "Thackston discloses a plurality of databases" and that a database "associating worker codes with one or more workers responsible for the design" reads on Thackston's "stored design and analysis access permission data module 860" (Ans. 35).

We agree with the Examiner. In particular, we find that one of ordinary skill in the art would have understood that, in order to have access to the particular part design module that is subject to limited access, the team member must have a particular code or ID associated therewith. That is, it

would have been obvious that the access permission data module comprises codes or IDs associated with the team members.

*Dependent Claims 24-26, 30, 31, 41, 42, 73, 75, 76, 85, 90, and 91*

Appellant do not provide separate arguments for patentability for claims 24-26, 30, 31, 41, 42, 73, 75, 76, 85, 90, and 91 from those of independent claims 23, 72, 82, and 92 from which they respectively depend. Accordingly, claims 24-26, 30, 31, 41, 42, 73, 75, 76, 85, 90, and 91 fall with respective claims 23, 72, 82, and 92.

*Dependent Claim 51*

As to claim 51, Appellant repeats the contention that "Thackston does not teach nor suggest associating more than one worker code to a worker" (App. Br. 20). However, as discussed above regarding independent claim 92, we find that one of ordinary skill in the art would have understood that, in order to have access to the various particular part design modules that are subject to limited access, the team member must have particular codes or IDs associated therewith. Therefore, we do not find Appellant's contention persuasive of error.

*Dependent Claims 74, 81, 83, 84, 88, and 89*

As to claims 74, 81, 83, 84, 88, an 89, Appellant merely repeats the claim language and repeats the arguments for claims 23, 72, and 82

discussed above (App. Br. 20-22). Accordingly, claims 74, 81, 83, 84, 88, and 89 fall with respective claims 23, 72, and 82.

*Dependent Claim 80*

Though Appellant argues that the Examiner "did not show where the claimed feature is found in the art" (App. Br. 20), claim 80 is rejected under Section 103 as being obvious in view of the applied reference. Section 103 does not require that the claimed feature be found in the prior art but rather forbids issuance of a patent when "the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." *See KSR*, 550 U.S. at 406.

We note that claim 80 does not require that the "initiating" step be performed by a separate machine or device, but merely that the initiating is of communication between workers designing the vehicle, "using information in the index." In fact, claim 80 does not preclude that "using information in the index" be interpreted to be describing the workers' discussion of the design stored in the indexed part design modules while designing the vehicle. We agree with the Examiner that it would have been obvious to one of ordinary skill in the art that Thackston's communication sessions between workers in designing the vehicles comprises an initiating step and using information stored in the indexed part design modules. Therefore, we do not find Appellant's contention persuasive of error.

## VI. CONCLUSIONS OF LAW

(1) Appellant has neither shown that the Examiner failed to make a prima facie case of obviousness, nor persuasively rebutted the Examiner's prima facie case.

(2) Appellant has not shown that the Examiner erred in concluding that claims 23-26, 30, 31, 41, 42, 51, 72-76, and 80-92 are unpatentable under 35 U.S.C. § 103(a) over the teachings of Thackston in view of Carver.

(3) Claims 23-26, 30, 31, 41, 42, 51, 72-76, and 80-92 are not patentable.

## VII. DECISION

We affirm the Examiner's rejection of claims 23-26, 30, 31, 41, 42, 51, 72-76, and 80-92 under 35 U.S.C. § 103(a).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

rwk

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